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Senate App 5/1/01

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Dr. Teresa Shellenbarger / Dr. Sheila Barlow Phone 7-2559 / 7-3250

Department Nursing and Allied Health

II. PROPOSAL TYPE (Check All Appropriate Lines)

__X__ **COURSE** Nursing Informatics
Suggested 20 character title

__X__ New Course* NURS 455 Introduction to Nursing Informatics
Course Number and Full Title

____ Course Revision _____
Course Number and Full Title

____ Liberal Studies Approval + for new or existing course _____
Course Number and Full Title

____ Course Deletion _____
Course Number and Full Title

____ Number and/or Title Change _____
Old Number and/or Full Old Title

_____
New Number and/or Full New Title

____ Course or Catalog Description Change _____
Course Number and Full Title

__X__ **PROGRAM:** ____ Major ____ Minor __X__ Track

____ New Program* _____
Program Name

__X__ Program Revision* Nursing, New RN Track
Program Name

____ Program Deletion* _____
Program Name

____ Title Change _____
Old Program Name

_____
New Program Name

III. Approvals (signatures and date)

Marie E Tuval 11-8-00
Department Curriculum Committee

Joan Kuma 11-9-00
Department Chair

Mary E. Swendin 11/15/00
College Curriculum Committee

Carleen A Tori 11.15.00
College Dean

_____
+Director of Liberal Studies (where applicable)

M Slay 11/27/00
*Provost (where applicable)

I. Catalog Description

NURS 455 Introduction to Nursing Informatics

3 lecture hours
0 lab hours
3 semester hours
(3c- 0l- 3sh)

Prerequisites: Registered nurse or permission of instructor.

This is an introductory and overview course in the application of the disciplines of nursing science, computer science and information science in collecting, processing, and managing information to promote decision making in nursing.

II. Course Objectives

At the completion of this course students will be able to:

1. Define nursing informatics and its application in nursing practice, education, administration, and research
2. Use computers to retrieve, enter, manipulate, review and evaluate data
3. Analyze social, ethical and legal issues related to the use of computerized information systems
4. Evaluate selected computer software applications
5. Discuss future significance of nursing informatics for the profession

III. Detailed Course Outline

Week 1 — 3 hours

A. Course overview
B. Nursing informatics
   1. Definitions
   2. Careers

Week 2 — 3 hours

C. How computers work
   1. Hardware
   2. Software
D. Understanding Windows and Operating systems

Week 3	E. Word processing 1. Special effects 2. Templates 3. Mail merge	3 hours
Week 4	F. Computer Communication in Nursing 1. Email 2. Listservs 3. Discussion groups for nursing and health 4. Bulletin boards for nursing and health 5. Chat rooms for nursing	3 hours
Week 5	G. The Internet and World Wide Web Use in Nursing 1. Accessing health care information 2. Evaluating Web Resources in nursing	3 hours
Week 6	H. Bibliographic Databases for nursing 1. CINAHL 2. MEDLINE	3 hours
	I. Electronic Searching for nursing 1. Voyager 2. Carl Uncover	
Week 7	J. Special Technology used in nursing 1. Digital cameras 2. Scanners	3 hours
Week 8	K. Presentation software and use in nursing 1. Guidelines for development 2. Special effects	3 hours
Week 9	L. Computer aided instruction in nursing 1 Types and Use 2. Critique	3 hours
Week 10	M. Ethical issues related to computing in nursing 1. Copyright laws 2. Privacy	3 hours
Week 11	N. Databases and use in nursing 1. Data entry 2. Queries 3. Tables	3 hours

Week 12	O. Spreadsheets and use in nursing 1. Development 2. Computations	3 hours
Week 13	P. Computers as Patient Care Tools 1 Telemedicine and Telehealth 2 Nightingale tracker	3 hours
Week 14	Q. A view of the future of nursing informatics 1. Virtual Reality in nursing	3 hours
Finals Week:	Culminating Activity Presentation of Projects	Final Exam Period

IV. Evaluation Methods

An ***approximate*** weighting of the final grade in this class will be based on the following:

Class participation	10%
Presentation project	20%
Electronic homework	40%
Database project	15%
Spreadsheet project	15%
	100%

Class Participation

Participation in class discussion is required to meet the course objectives. Students are expected to prepare for class and contribute meaningfully. The quality and quantity of participation will be reflected in the evaluation.

Presentation Project

Students will work in small groups depending on interest and develop a presentation using presentation software program. Grading will be based upon the quality of the work, accuracy of the content area, demonstration of knowledge of presentation software, special effects, and creativity, and supplemental materials which are part of the project.

Electronic Homework

Students are expected to complete electronic homework assignments provided by the instructor. These assignments will provide students opportunities to practice computer skills and the application to nursing. Further guidelines will be provided in class. Grading will be based upon the demonstration of computer skills needed to complete these assignments and the accuracy of the homework.

Graduate students will complete 6 homework activities and students enrolled as undergraduates are expected to complete 3 homework activities.

Database

Each student will select a nursing problem and create a simple database for the project you identify. Grading will be based upon the accuracy of entries and the demonstration of knowledge of database workings.

Spreadsheet

Create a simple spreadsheet for a project you identify. Grading will be based upon the accuracy of entries and the demonstration of knowledge of spreadsheet workings.

Undergraduate Grading Scale

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = less than 60%

V. Required Books and Readings

Thede, L. Q. (1999). Computers in nursing: Bridges to the future. Philadelphia:Lippincott.

Reserve reading assignments

VI. Special Resource Requirements: There are no additional materials that the student is expected to supply for this course. There is no lab fee associated with this course.

VII. Bibliography

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Brazier, H., & Begley, C.M. (1996). Selecting a database for literature searched in nursing. Journal of Advanced Nursing, 24(4), 868-875.

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Greenberg, E.A., & Ismemurt, R., Long, C., & White, P.A. (1999). Searching the Web: Part II. Home Healthcare Nurse, 17(9), 581-586.

Hebda, T., Czar, P., & Mascara, C. (1998). Handbook of Informatics for nurses and health care professionals. Menlo Park, CA: Addison-Wesley Longman.

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Lewis, D., Watson, J. E., & Newfield, S. (1997). Implementing instructional technology: Strategies for success. Computers in Nursing, 15(4), 187-190.

Merril, G.L., & Barker, V.L. (1996). Virtual reality debuts in the teaching laboratory in nursing. Journal of Intravenous Nursing, 19(4), 182-187.

Mills, M. E. Romano. C. A., & Heller, B. R. (1996). Information management in nursing and health care. Springhouse, PA: Springhouse.

Morison, M., & Moir, J. (1998). The role of computer software in the analysis of qualitative data: Efficient clerk, research assistant or Trojan horse? Journal of Advanced Nursing, 28(1), 106-116.

Nagelkerk, J., Ritola, R., & Vandort, P. J. (1998). Nursing informatics: The trend of the future. The Journal of Continuing Education in Nursing, 29(1), 17-21.

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O'Reilly, K.E. (1998). Notes from the field. Nursing informatics: What can it do for managers? Nursing Management, 29(7), 65-66.

Ribbons, R.M. (1998). Guidelines for developing interactive multimedia: Applications in nurse education. Computers in Nursing, 16(2), 109-114.

Rosen, E.L., & Routon C.M. (1998). American nursing informatics association role survey. Computers in Nursing, 16(3), 171-175.

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Yensen, J. (1999). Connecting points: Digital domain. A possible digital domain for nursing. Computers in Nursing, 17(1), 14-15.

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COURSE ANALYSIS QUESTIONNAIRE
NURS 455: Introduction to Nursing Informatics

Section A: Details of the Course

A1 This course is a required course for all Registered Nurse students enrolled in the Bachelor of Science degree in Nursing program.

A2 This course is part of the curriculum revision in the nursing program.

A3 This course has been offered as a graduate level special topics course at IUP. During the Fall of 1996 six graduate students completed the course. The course was also offered during Spring 2000 and had 9 students enrolled.

A4 This course is intended to be offered as a dual-level course. The course has received departmental and college approval as NURS 511 and is currently moving to the graduate committee for approval.

A5 This course is not intended to be taken for variable credit.

A6 Many nursing programs offer courses in computer literacy or nursing informatics. Programs offering similar courses include Duke University, N302 andN347; Waynesburg College, CSC 105; or the University of Southern Maine, CON 308.

A7 The content in this course is a necessary component of professional nursing practice as recommended by the American Association of Colleges of Nursing. (See attached documentation).

Section B: Interdisciplinary Implications

B1 Each section of this course will be taught by one faculty member within the Nursing Department.

B2 This course does not overlap with any other courses at the University.

B3 Two seats will be available for Continuing Education students who meet course pre-requisites.

Section C: Implementation

C1 No new faculty are needed to teach this course. See faculty resource section of proposal.

C2 Other resources

a. Current space allocations are adequate to offer this course. Since this course will probably be offered during alternative times such as evenings, availability of computer lab space is sufficient at this time.
b. Currently Stapleton Library subscribes to a number of nursing journals that would be helpful for students in this course. These journals include: American Journal of Nursing, RN, Nursing, Journal of Advanced Nursing, and Advances in Nursing Science. In addition, the Department of Nursing and Allied Health Professions receives subscriptions to other journals that might be useful to students in this course. These journals include: Journal of Professional Nursing, and Image: Journal of Nursing Scholarship. The library has a satisfactory holding of references related to nursing and the Internet provides additional reference materials for students. Periodic updates of library holdings are necessary. The department has a mechanism in place for identifying and recommending future purchase for library holdings. Library holdings are adequate

C3 No grant funds are associated with this course.

C4 This course will be offered every Fall semester

C5 One section of the course will be offered at a time.

C6 Twenty students will be accommodated in each section or as limited by computer laboratory facilities.

C7 No professional society limits enrollments in a course of this nature.